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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,657	09/29/2003	Byung Soo Song	HI-0179	9020

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EXAMINER

RAHMJOO, MANUCHER

ART UNIT	PAPER NUMBER
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2628

DATE MAILED: 04/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/671,657	Applicant(s) SONG ET AL.	
	Examiner Mike Rahmjoo	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4,5,9-11,13 and 28-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4,5,9-11,13 and 28-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/3/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 recites the limitation "the movement" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 4- 5 and 9- 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Mikoshiba et al (US Patent 6496194), hereinafter, Mikoshiba.

As per claims 4 and 28- 30 Mikoshiba teaches detecting each false contour generation regions from first video data for a previous frame period and a second video

data for a current frame period see for example fig. 15 to 18 B and column 15 lines 60-67 for the false contour compensation between two successive frames corresponding to first and second video data; extracting a motion information from the first video data the second video data including the detected false contour generation regions see for example column 12 lines 45- 55 and fig. 14 wherein the comparator 410a which compares bit data in the n-th frame with bit data in the (n+1)th frame, and outputs "+1" for any bit in the bit data that changed from ON to OFF (comparing and outputting steps corresponding to extracting motion information); setting a compensation value based on the velocity value from the motion information see for example column 16 lines 50- 55 wherein compensation is a based on the moving speed and column 36 lines 45- 50 wherein reducing of halftone disturbance (corresponding to compensation) is made for moving images at various speeds and directions; adding or subtracting the compensation value to or from a gray scale (adjusting gray scale) that has generated the false contour depending on a direction (e.g., column 36 lines 45- 50 for the various direction and fig. 26- 31b) from the motion information see for example fig. 23 and column 23 lines 8- 15 wherein motion compensation equalizing (addition and subtraction) and luminance blocks which are used to display gray scale level of a pixel are used.

As per claims 5 and 31 Mikoshiba teaches the first video data of the previous frame period is stored such that the first video data is delayed during one frame period by a frame memory see for example fig. 14 and column 12 line 39.

As per claims 9 and 32 Mikoshiba teaches the false contour is generated when a gray scale having a combination of a plurality of sub-fields is any one of 16, 32, 64 and 128 see for example fig. 1 and 19.

As per claims 10 and 33 Mikoshiba teaches matching the first video data of the previous frame period with the second video data of the current frame period see for example column 12 lines 45- 55 for the equalization through comparison performed in fig. 14 corresponding to matching between successive frames; and extracting (corresponding to determination through comparison) the motion information from a change of the movement between the false contour generation region of the first video data and second false contour generation region of the second video data see for example column 12 lines 45- 55 and fig. 14 wherein the comparator 410a which compares bit data in the n-th frame with bit data in the (n+1)th frame, and outputs "+1" for any bit in the bit data that changed from ON to OFF (comparing and outputting steps corresponding to extracting motion information).

As per claims 11 and 34 Mikoshiba teaches size (corresponding to increase from left to the right of the screen in column 9 line 25 and also the increase to 256 scale in column 11 line 42), direction and velocity value (corresponding to speed) of a gray scale see for example column 9 lines 20- 35.

As per claims 13 and 35 Mikoshiba teaches setting the compensation value based on a size of the gray scale see for example the increase from left to the right of the screen in column 9 line 25 and also the increase to 256 scale in column 11 line 42 corresponding to size of gray scale.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 6,501,446

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Rahmjoo whose telephone number is 571-272-7789. The examiner can normally be reached on 8 AM- 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on 571-272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mike Rahmjoo

February 17, 2006

A handwritten signature in black ink, appearing to be 'Mike Rahmjoo', written in a cursive style.